



BILLING CODE: 4140-01-P

## **DEPARTMENT OF HEALTH AND HUMAN SERVICES**

### **National Institutes of Health**

#### **Government-Owned Inventions; Availability for Licensing**

AGENCY: National Institutes of Health, Public Health Service, HHS.

ACTION: Notice.

SUMMARY: The invention listed below is owned by an agency of the U.S. Government and is available for licensing and/or co-development in the U.S. in accordance with 35 U.S.C. 209 and 37 CFR part 404 to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing and/or co-development.

DATES: Only written comments and/or applications for a license which are received by the NCI Technology Transfer Center on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] will be considered.

ADDRESSES: Technology Transfer Center, National Cancer Institute, 9609 Medical Center Drive, Mail Stop 9702, Rockville, MD, 20850-9702, Tel. 240-276-5515 or email [ncitechtransfer@mail.nih.gov](mailto:ncitechtransfer@mail.nih.gov).

FOR FURTHER INFORMATION CONTACT: Information on licensing and co-development research collaborations, and copies of the U.S. patent applications listed below, may be obtained by contacting: Attn. Invention Development and Marketing Unit, Technology Transfer Center, National Cancer Institute, 9609 Medical Center Drive, Mail Stop 9702, Rockville, MD, 20850-9702, Tel. 240-276-5515 or email

ncitechtransfer@mail.nih.gov. A signed Confidential Disclosure Agreement may be required to receive copies of the patent applications.

#### SUPPLEMENTARY INFORMATION:

Title of invention: Thalidomide/lenalidomide/pomalidomide analogs that inhibit inflammation, angiogenesis

Description of Technology: Thalidomide and its close analogs (lenalidomide and pomalidomide) are widely used to treat a variety of diseases, such as multiple myeloma and other cancers, as well as the symptoms of several inflammatory disorders. However, thalidomide is known for its teratogenic adverse effects when first introduced clinically in the 1950s, and is associated with drowsiness and peripheral neuropathy. Hence, there is intense interest to synthesize, identify and develop safer analogs. Researchers at the National Institute on Aging's Drug Design and Development Section synthesized novel thalidomide analogs that demonstrate clinical potential without being teratogenic, as initially evaluated in *in vivo* zebrafish and chicken embryo model systems and in cell culture. These new compounds differentially provide potent anti-angiogenesis and/or anti-inflammatory action. The agents have potential for development of new cancer therapies and treatment of a number of neurological and systemic disorders involving chronic inflammation and elevated TNF-alpha levels.

#### Potential Commercial Applications:

- Cancer therapeutics
- Inflammatory disorders such as Crohn's disease, sarcoidosis, graft-versus-host disease, and rheumatoid arthritis
- Neuroinflammatory disorders (acute: traumatic brain injury and stroke; chronic:

Parkinson's disease, Alzheimer's disease, multiple sclerosis)

Value Proposition:

- Non-teratogenic
- Potent

Development Stage:

In vitro/Discovery

Inventor(s):

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Intellectual Property:

HHS Reference No. E-208-2015/0-US-01

US Provisional Patent Application No. 62/235, 105, filed September 30, 2015, entitled “Thalidomide/lenolidomide/pomalidomide analogs that inhibit inflammation, angiogenesis”

Licensing and Collaborative/Co-Development Research Opportunity: The National Institute on Aging seeks collaborators to license or co-develop novel thalidomide analogs that demonstrate clinical potential without being teratogenic.

Contact Information: Requests for copies of the patent application or inquiries about licensing and/or research collaboration and co-development opportunities should be sent to John D. Hewes, Ph.D., email: [john.hewes@nih.gov](mailto:john.hewes@nih.gov).

CFR CITATION: 35 U.S.C. 209 and 37 CFR part 404

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Thomas M. Stackhouse

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Technology Transfer Center

National Cancer Institute

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